

## Stained Glass 101



# Stained Glass Picture Frames

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by Brian McMillan



Brian has been involved in the stained glass industry as an instructor, designer, supplier, studio owner, author, and publisher for 20 years. He and his family publish a series of pattern books under the name Walrus Publications. One of their newest releases, *My Family Album*, by daughter Julie McMillan, is full of designs for picture frames.

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### Beyond the Basics

Pretty well everyone who will pick up this paper knows the basic methods of working in stained glass — but there are so many little simple, but highly effective tricks of the trade which can make your crafting less frustrating. Today I would like to provide you with some hints on how to make a picture perfect photo frame. I've included dimensions and illustrations so you can make your own frame for a 4"x6" photograph. I think that of all the projects that you can make in stained glass, photo frames are among the most popular which are given as gifts. Everyone needs more frames and with a custom photo frame, colors can be chosen to complement the photograph.



### Step-By-Step

Whenever possible, choose glass which complements your photo. Nothing in my mind is more offensive to a good photograph than a frame which clashes. The sample design which we have provided is for a single 4"x6" photo. The design is very simple, but we will embellish it by adding wire adornments.

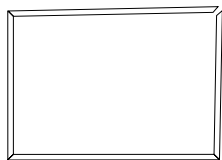
Always make the clear glass opening for your photo  $\frac{1}{4}$ " smaller than your photo. In our design, the clear glass is  $3\frac{3}{4}$ "x $5\frac{3}{4}$ ". You do not want to see the edges of the photo. You can use the dimensions in this diagram to draw the design for our sample photo frame.

Opalescent glass is the best choice for frames. You don't want to see the backing, stand etc. Cut, grind and foil ( $\frac{7}{32}$ " black backed foil) your glass pieces. Solder the front and back as usual, but don't bead the seam on the back around the clear window glass.

I use single channel U zinc on the edge of photo frames to give a clean crisp edge. The 'Lil Notcher by Cascade Metals will remove a 45° bite from the channel so that it can be bent at that spot and the channel will remain in one piece. When you wish to separate the channel (as at the ends of the pieces), make a notch and then fatigue the metal by continuously bending the metal until it breaks. If you buy a 'Lil Notcher and experiment, you will find that it is really handy. If you don't plan on

going into production, then you may wish to use inexpensive wire cutters to remove the notch at each corner. Remember that you will have a 45° notch on each end as in the diagram. Slip the channel onto the edges of your frame and solder the channel at each corner, wherever a solder seam touches the edge and where the two ends join together. Don't use too much solder or you will end up with a large bump. When you are initially soldering together your project, don't solder closer than  $\frac{1}{4}$ " to the edge so that the channel will slip over easily. Solder the entire front and back except

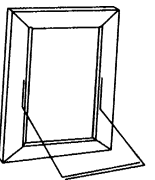
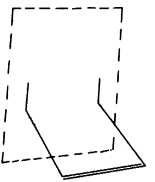
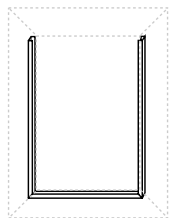
cut notches in your zinc channel, then bend to fit around your glass frame



on the back where the channel that holds the photo will go. Only skim coat (or "tin") the seams where the U channel will be attached.

Cut a piece of stiff cardboard (matte board used in picture framing is my preference) the same size as the photo and cut a piece of single channel zinc to fit it snugly. With the matte board in the channel, tack solder the channel in a few spots to the back of the frame. Good solder locations are wherever the channel crosses a solder seam. If you are going to patina your project it wouldn't hurt to tin the channel so that it will accept the patina. To do this, simply flux the channel and draw a **single drop** of solder along the front surface as well as the side. When your frame is complete, place the matte board in the channel behind the photo to push it flush with the clear glass.

I use  $\frac{1}{8}$ " brazing rod (available at welding supply stores) or the tubes used for hinges on jewelry boxes to make a simple stand for the back of my photo frames. Bend two 12" rods to the shape shown to the right. It is easiest to have one rod for the left side and the bottom and another piece for the right side and the bottom. Yes, that gives you two bottoms. Simply tack solder the two bottoms together and cut off any excess material. This will allow you to desolder them and make adjustments if needed. Test the back support against the frame to see if you like the angle. Don't make the angle too shallow as the frame will be prone to falling over. You can manipulate the rod to adjust the angle until you are happy with it. Solder the rods securely to the outside edge of the channel.



### Customizing Your Frame

Why not make two or three frames and attach them together using 2" pieces of brazing rod bent at about a 100° angle and soldered into the seams on the back of the frame? This will allow you to display a whole group of photos. Or, you can use chain to suspend one frame below another to hang on the wall.

Use various sizes of jump rings as overlays to add extra interest to a project. Jump rings come in numerous different sizes and are sold at stained glass shops for hanging panels. You can make your own rings by wrapping tinned copper wire – I use 18 gauge – around a wooden dowel (use different sizes) and then cut them apart with wire cutters. Arrange them randomly on top of your project and solder them together wherever they touch each other or a solder seam. Leave the spaces between them open, and don't use too much solder.

You can make a special frame for any occasion. Use these guidelines as a place to start and let your imagination run wild.



*Brian*